



ON THE
TREATMENT OF DELIRIUM TREMENS,

BEING AN APPENDIX TO AN ESSAY ON THIS DISEASE, FORMERLY
PUBLISHED.

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and Surgical Journal.)

IN some remarks on delirium tremens, which were published among the communications of the Massachusetts Medical Society a few years since, and which were founded exclusively on cases which had occurred under my own observation, I expressed the opinion that this disease was not capable of being arrested in its course by treatment—that the paroxysm of watchfulness and delirium was not shortened by remedies, but would continue a certain time, and then arrive at a spontaneous termination either in death or recovery—and that opium, so far from exercising, as many have supposed, a favorable influence on the event, served rather to increase than diminish the mortality.

The opinions then expressed were not founded upon any strict or analytical examination of the cases referred to, but were simply the result of the general impressions which are left upon the mind of the practitioner, by the observation of disease, as it presents itself in the routine of ordinary practice. I am fully sensible of the cautious reliance which should be placed on results which have been thus obtained, and it seemed, therefore, desirable to inquire how far these opinions would be confirmed by a more strict examination of the cases on which they were founded.

Such an inquiry has accordingly been made, and the results I now lay before the Society. Since the publication of the paper alluded to, a few cases of delirium tremens have fallen under my care, and these have been included in the examination. Other cases, on the contrary, which were then referred to, have been now rejected. The objects of that paper embraced a general history of this peculiar delirium, whether occurring in a distinct paroxysm or only as a transient symptom in the course of other diseases. I have now only included those cases in which the delirium presented itself in the form of a regular paroxysm. I have also excluded thirty-one cases which occurred under my care at the Boston Almshouse, as I have no notes of their history or treatment, but merely of the event of each case.

The number of cases in private practice was 69, occurring during a period of about twenty years. Of these cases 63 occurred among males, and 6 among females. The whole number of deaths was 11—all the fatal

cases were of males. Of 31 cases at the Almshouse, 5 were fatal. The ratio of mortality in all the cases was thus very nearly the same.

1. Eight cases were treated by *large doses* of opium, given with the intention of bringing about a termination of the paroxysm by sleep. The quantity administered varied, in different cases, from 24 to 72 grains, and it was usually given in the course of 48 hours. Four of these cases proved fatal. One died after sleep had been procured, the patient never awaking after the full effect of the remedy had been produced, but expiring in a state of coma. The remaining three died without having slept. Neither of these eight patients was bled. One of them was the subject of a severe acute disease, dysentery, in the course of which delirium tremens supervened; this was a fatal case. The others, so far as could be ascertained, labored only under such general symptoms of disorder as are common to those made sick by intemperance, or some such chronic ailment as is frequent among persons of those habits, and could not be supposed to influence the course or event of the delirium. In the cases which recovered, restoration to health took place speedily and completely after sleep had taken place.

2. Seven cases were treated by *small doses* of opium, or opium given in such manner and quantity as not to have a distinct and powerful influence in the procuring of sleep, the quantity not exceeding two or three grains in twenty-four hours. Two of these patients died, both without having slept. One was laboring under severe peripneumony when attacked by delirium tremens—this case was fatal. One patient was bled, and this was one of the favorable ones.

3. Twelve cases were treated principally by repeated and continued vomiting, according to the mode of practice recommended by Dr. Klapp, of Philadelphia. Tartarized antimony was chiefly relied on for this purpose, but in a few cases the sulphate of copper and ipecacuanha were substituted, with no apparent difference in the effects of the treatment. Two of these patients labored under severe disease, one of the brain, and one of the cellular membrane around the knee-joint. The former died, the latter recovered. One patient was bled, and this recovered. Of the whole number, one died.

4. In two patients a single copious bleeding from the arm was the only remedy employed, and in both the disease speedily gave way.

5. In nine cases the mode of practice was what may be termed, for convenience of distinction, Eclectic. The treatment was adapted to the prominent symptoms in each patient, having regard, in its application, rather to the general character of the case and the indications of derangement in particular organs, than to the presence of the peculiar affection of the brain which constitutes delirium tremens. Of course, a large proportion (seven) of these cases, were decided cases of acute local disease, and were treated by the usual remedies. Five of the nine were bled; and of these, two died. Of the whole nine, three died, all of them being cases of peripneumony.

6. One case, in which the delirium accompanied erysipelas of the face and head, was treated by large doses of the sulphate of quinine. This recovered.

7. One case was treated by mercurials—salivation occurred, and the patient recovered.

8. In 29 cases the mode of treatment was what may be properly denominated Expectant. It is not intended to imply, however, that no remedies were administered. At the commencement of many of them active measures were employed for a short period. Thus some were bled, some leeches, to some an emetic was given, several were blistered upon the neck, and all were more or less subjected to the operation of cathartics. Besides these remedies at the outset, various articles were administered in the course of the several cases, but usually of an inefficacious character, or in such doses as probably to have had no influence on the course of the disease. For example, small doses of spir. ether nit., liq. ammon. acet., tinct. hyoscyam., ext. conii., tinct. humuli, tinct. valerian, tinct. assafetid., and various other medicines, were administered, but from the amount and efficacy of the substances thus taken, no physician, acquainted with their power, would for a moment suppose them to have had any control over the disease.

All these cases were free from combination with acute disease, with one exception; in this there was inflammation of the arachnoid membrane of the brain, as determined by dissection. This was fatal. Four patients were bled, and all of them recovered. Of the whole number 29, one died.

The results of the different methods of treatment will be more readily compared, if they are thrown together into a tabular form.

Treatment.	No. Cases.	Bled.	Died.	Recovered.	Complicated with Acute Disease.
Opium, large doses	8	0	4	4	1
“ small	7	1	2	5	1
Emetics - - - -	12	1	1	11	2
Bleeding - - - -	2	2	0	2	0
Eclectic - - - -	9	5	3	6	7
Quinine - - - -	1	0	0	1	1
Mercurials - - -	1	0	0	1	0
Expectant - - - -	29	4	1	28	1
	69	13	11	58	13

It appears from this statement that of 15 cases in which opium constituted the principal remedy, 6 died; whilst of 54 in which opium was used not at all, or only incidentally and in small quantities, only 5 died. Still further, if we separate from these 54, the 9 cases in which the treatment was eclectic, and in which the mortality seems to have arisen from the combination of acute disease, we have a remainder of 45 cases, of which only 2 were fatal. Again, if we compare the mortality of those cases in which opium was pushed to the full extent advised by writers on this disease, with those in which no active remedy was employed, we have a mortality of 1 in 2, against a mortality of only 1 in 29.

This difference in the results of treatment would seem altogether too great to be attributed to accident, and goes far to establish the truth of the opinion formerly expressed, that opium given in large doses is actually injurious to patients laboring under delirium tremens. But

even admitting it as possible that the great proportion of fatal cases occurring where opium was used, was accidental, it certainly, I think, will not be contended that the favorable termination of the cases not treated by opium, was also owing to accident. And it will certainly follow that opium, if not absolutely injurious to these patients, is at least useless, and that our success in this disease will be sufficiently satisfactory without it.

The examination which has been made of these cases has led me to the notice of some other circumstances relating to the history and treatment of delirium tremens, which it may be worth while to record.

And first, it appears that a case of this disease is not often fatal unless some other affection is present, which is in itself dangerous, and liable, even without its complication with delirium tremens, to prove fatal. Of the 11 fatal cases above recorded, 7 or 8 were of this character. It is not, however, always in our power to be certain of the existence of such a combination, since the effect of the delirium is to absorb or over-shadow whatever other affection may co-exist, and thus to obscure its symptoms and prevent us from recognizing its presence. It may have been possible, therefore, that in the other fatal cases where no such combination was apparent, it may have existed. But it is still worthy of remark that of the fatal cases occurring among patients who were presumed to be free from any such combination, two, if not three, were of those who were subjected to the full opium practice.

2. In three of the fatal cases death took place after the patient had slept. We have been taught to rely on the occurrence of sleep as a pretty certain indication of a favorable termination. It would appear, however, that to this indication there are many exceptions. Neither is the occurrence of sleep in favorable cases always followed by a termination of the paroxysm. Eight patients slept more or less during the continuance of the disease; awaking to exhibit all the symptoms which had previously existed.

3. Convulsions have been considered an unfavorable symptom in delirium tremens; but of 9 patients in whom they occurred, only two were among the fatal cases. I will not assert positively that all the instances in which they took place were noted, yet I do not think they were often omitted. Especially it is probable that they were not overlooked in the fatal cases. Hence, if there be any error, it is one which would diminish rather than increase the ratio of mortality among the cases presenting this symptom.

4. General bloodletting has been usually regarded as inadmissible in the treatment of delirium tremens, and is, by some, thought highly injurious. Thirteen patients were bled from the arm, at some period in the course of their disease. Of these only two died, and these were both affected by peripneumony. This would seem, at least, to show that bleeding is not a dangerous remedy, since the cases in which it was employed were principally those in which there was a combination of some acute disease with the delirium; in which class of cases, as already observed, very much greater danger exists than in those in which the delirium is uncombined.

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